

# SCIENCE & EDUCATION **Impact**

Benefits from USDA/Land-Grant Partnership

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## Smart Gardens

Keep the grass greener on *your* side of the fence.

*Roses are often red and violets are blue – but what do you do when they're covered with bugs or diseases you've never seen before? Check with your local Land-Grant university. The Land-Grant and USDA partnership offers programs across the country to educate homeowners on how best to care for lawns and gardens using environmentally sound practices. Kids and communities can get in the act with special gardens and activities — even food banks benefit.*

### Payoff

- **Protecting the Chesapeake.** About 20 percent of the nutrient pollutants that reach the Chesapeake Bay start in someone's backyard. A **Maryland** Extension program is reducing the amount of fertilizer and pesticides homeowners use and protecting the bay. A 24-hour toll-free phone line offers personal help as well as recorded information on more than 400 subjects. Since 1990, the Home and Garden Information Center has handled 450,000 calls. In a survey, nearly 60 percent of callers said they used recommended integrated pest management strategies that reduced pesticide use, and 42 percent found they wouldn't need a pesticide to control their problem after all. **Virginia Tech** Extension operates the "Bug Club" in the Chesapeake Bay watershed, providing one-on-one assistance to homeowners. In exchange, homeowners agree to adopt integrated pest management practices in their yards. A survey showed 87 percent planned to adopt at least one new practice that would protect the environment; 63 percent said they learned to identify insects and diseases — a skill that will help them better target pesticides.
- **The right stuff.** Land-Grant university programs nationwide help homeowners choose plants that will thrive in the local climate. **Oklahoma State** offers Oklahoma Proven (OKP), a plant evaluation and promotion program. Marketing materials help retail nursery outlets showcase best-choice plants. A well-chosen plant reduces the need for pesticides and increases a homeowner's success in the garden. One nursery owner reported an 81 percent increase in sales for plants promoted through OKP. A 10-acre garden in **Tennessee** evaluates 600 to 800 varieties and grows more than 2,000 varieties of new and experimental plants. Visitors can learn about heat and cold tolerance, flower production, plant size and pest resistance, or

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<http://www.reeusda.gov/success/impact.htm>

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they can access the information on the Web site <http://ohld.ag.utk.edu/>. In **Delaware**, tours of native-plant nurseries taught professionals about using plants that occur naturally in landscapes.

- **Gardens that grow kids.** The 4-H Young Entrepreneur Gardening Program in Denver teaches young people in high-risk neighborhoods about growing plants and harvesting, packaging and marketing their bounty. Participants in this local **Colorado State** Extension program sell to caterers, boutique owners and restaurants. The program is partly supported by the Troy Chavez Foundation, a gang prevention program, and its leaders believe it does more than get kids off the street. It teaches them other life skills — hard work, responsibility, customer service and business management.

**Ohio State's** Master Gardener program in Cuyahoga County worked with fourth graders in the Cleveland Public School system to help improve science literacy. Children's science scores increased 21 percent on the fourth grade proficiency test. **Missouri's** Junior Master Gardener program teaches kids science through horticulture. Fifth and sixth graders plant and harvest their own gardens for home use and donation to a local food bank. An **Arizona** in-school program reached more than 3,000 students from kindergarten through eighth grade at 10 schools with gardening projects and nutrition education. One garden is at a school for autistic children; another is on the Gila River Indian Reservation. School cafeterias serve the produce.

- **Masterful gardening.** As interest in gardening has grown, extension staff nationwide are organizing and expanding Master Gardener programs to meet the local needs of fledgling gardeners. Launched in 1972 by **Washington State**, Master Gardener programs help Land-Grant universities extend research-based information through highly educated volunteers. In exchange for training, volunteers contribute hours to educate the public. **Cornell** Extension's program offers expansive organic gardening information to New Yorkers through fact sheets, training and slide sets. In **Arizona**, Master Gardeners train homeowners in more efficient use of water and pesticides. **Tennessee** Master Gardeners teach small engine maintenance and operation, and they estimate that home maintenance and repairs could save the average family \$168 each year.

- **Gardens for every body.** Arthritis, vision problems and wheelchair use needn't take away the ability to raise a garden. A **Missouri** program helps disabled gardeners keep growing through its Web site <http://www.muhealth.org/~arthritisk/gardens/>. Information includes special modifications for gardening tools, the use of raised beds and designing accessible walkways.

- **Growing together.** Community gardens offer more than a place to grow vegetables; they give neighbors a place to gather and families a place to work together. Through a **Wisconsin** Extension program, 1,200 families — many living in poverty — saved \$175,000 by growing their own food. Food pantries received about \$50,000 worth of food from the harvest. **Idaho** Extension educators work on the Nez Perce Reservation with the USDA/Nez Perce Tribe Food Distribution Center and provide integrated pest management information to community gardeners. The tribal emergency food bank receives fresh produce from the garden and participants learn techniques to use at home.

- **Pretty flowers shouldn't make ugly waters.** In **Nevada**, the Neighborhood Leaders Program is reaching homeowners with information on how to protect Lake Tahoe's famous clarity through best management practices in their lawns and gardens. **Rutgers** provides similar information to New Jersey homeowners in Camden County, improving practices on 7,500 acres of residential, commercial and public landscapes.



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